


Project Development Phase Model Performance Test

Date	10 November 2023
Team ID	593074
Project Name	AI powered Weapon Detection System
Maximum Marks	10 Marks

Model Performance Testing:

Project team shall fill the following information in model performance testing template.

S.No.	Parameter	Values	Screenshot
	Model Summary	-	<pre> Model summary (fused): 168 layers, 11125971 parameters, 0 gradients, 28.4 MB Class Images Instances Box(P) R all 732 815 0.413 0.363 </pre>
	Accuracy	Training Accuracy - Validation Accuracy -	<pre> Epoch GPU_mem box_loss cls_loss dfl_loss Instances Size 42/50 0G 0.6489 1.2 1.159 5 640: 100% 9/9 [02:08<00] Class Images Instances Box(P) R mAP50 mAP50-95: 100% 1/1 all 29 29 0.685 0.636 0.595 0.44 Epoch GPU_mem box_loss cls_loss dfl_loss Instances Size 43/50 0G 0.7265 1.175 1.196 5 640: 100% 9/9 [02:05<00] Class Images Instances Box(P) R mAP50 mAP50-95: 100% 1/1 all 29 29 0.803 0.64 0.645 0.466 Epoch GPU_mem box_loss cls_loss dfl_loss Instances Size 44/50 0G 0.6954 1.14 1.209 5 640: 100% 9/9 [02:04<00] Class Images Instances Box(P) R mAP50 mAP50-95: 100% 1/1 all 29 29 0.775 0.674 0.655 0.483 Epoch GPU_mem box_loss cls_loss dfl_loss Instances Size 45/50 0G 0.7123 1.09 1.3 5 640: 100% 9/9 [02:02<00] Class Images Instances Box(P) R mAP50 mAP50-95: 100% 1/1 all 29 29 0.726 0.716 0.672 0.477 Epoch GPU_mem box_loss cls_loss dfl_loss Instances Size 46/50 0G 0.6284 1.028 1.191 5 640: 100% 9/9 [02:06<00] Class Images Instances Box(P) R mAP50 mAP50-95: 100% 1/1 all 29 29 0.697 0.705 0.661 0.467 Epoch GPU_mem box_loss cls_loss dfl_loss Instances Size 47/50 0G 0.6283 1.022 1.114 5 640: 100% 9/9 [02:06<00] Class Images Instances Box(P) R mAP50 mAP50-95: 100% 1/1 all 29 29 0.78 0.627 0.653 0.44 Epoch GPU_mem box_loss cls_loss dfl_loss Instances Size 48/50 0G 0.6458 0.9744 1.136 5 640: 100% 9/9 [02:06<00] Class Images Instances Box(P) R mAP50 mAP50-95: 100% 1/1 all 29 29 0.724 0.707 0.695 0.446 Epoch GPU_mem box_loss cls_loss dfl_loss Instances Size 49/50 0G 0.5825 0.9801 1.075 5 640: 100% 9/9 [02:06<00] Class Images Instances Box(P) R mAP50 mAP50-95: 100% 1/1 all 29 29 0.736 0.716 0.697 0.46 Epoch GPU_mem box_loss cls_loss dfl_loss Instances Size 50/50 0G 0.5892 1.045 1.116 5 640: 100% 9/9 [02:04<00] Class Images Instances Box(P) R mAP50 mAP50-95: 100% 1/1 all 29 29 0.742 0.701 0.708 0.469 </pre>

	Confidence Score (Only Yolo Projects)	Class Detected - Handgun, Knife Confidence Score - 0.7+	
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Accuracy:

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mAP50  mAP50-95): 100% 1/1 [00:07<00:00, 7.87s/it]
0.655    0.483
0.545    0.441
0.765    0.525
```

Model Summary:

```
Model summary (fused): 168 layers, 11125971 parameters, 0 gradients, 28.4 GFLOPs
      Class      Images  Instances   Box(P)      R    mAP50  mAP50-95): 100% 46/46 [00:11<00:00,
      all         732      815     0.413    0.363    0.343    0.219
```

Confidence Score:

